



September 13, 2018

Mr. Steven Rapp  
US EPA REGION 1 - New England  
5 Post Office Square, Suite 100  
Mail Code: OES04-2  
Boston, MA 02109-3912

**RE: Supplemental Submittal – NESHAP/NSPS Information  
Tilcon Connecticut Inc.**

Dear Mr. Rapp:

Triton Environmental, Inc. (Triton) is writing on behalf of Tilcon Connecticut Inc. (Tilcon) to follow up on the telephone conference call we participated in on July 31, 2018. During this call we discussed the content of Tilcon's submittals on April 9 and June 25 responding to EPA's request for information regarding National Emission Standards for Hazardous Air Pollutants (NESHAPs) and New Source Performance Standards (NSPS). Provided below are the following items we agreed to pursue, along with our responses and/or additional information.

**Subpart 000 – Fugitive Emissions Testing Records**

During our conference call, there was a question regarding the consultant's inspectors identifying the correct name of the training entity on the visible emissions reports. Triton looked into this matter and concluded the inspectors inadvertently confused the abbreviated name of the state agency that performed the training. Everything appears to be in order, but further details are provided below.

Specifically, EPA noted that the visible emission observation forms prepared by the three staff members from Continental Placer, Inc. (CPI) contained a box for information with the heading of "Certified by", and a box for information with the heading of "Date." On the forms, the three CPI staff members wrote "NHDEP" or "NHARD" in the boxes with the heading "Certified by", and the dates of April 23 or April 24, 1996, in the boxes with the heading "Date". The EPA asked about the significance of NHDEP and NHARD identified on the forms and the listed dates.

On the forms, "Certified by" and "Date" refers to the organizations that certified the three CPI staff members to perform visible emission observations and the dates when the staff members attended the Visible Emissions Evaluation course to obtain their certifications. The three CPI staff members attended the Visible Emissions Evaluation "smoke school" provided by the State of New Hampshire Department of Environmental Services (NHDES) on April 23 and 24, 1996. More specifically, the smoke school was provided by the NHDES Air Resources Division, identified as NHARD. Two of the CPI staff members inadvertently wrote NHDEP on the forms instead of NHDES.

Triton spoke with Mr. Jeffery Slade at CPI on August 7, 2018, one of the three staff members that performed the visible emission observations at the Tilcon sites in June 1996. Mr. Slade said that observers have to be recertified to perform visible emission observations every six months, and CPI staff attended smoke school in New York or New Hampshire depending on the timing of available courses and proximity to the various CPI office locations. Mr. Slade and one of the other CPI staff members were from the CPI office location in Albany, New York, and inadvertently recorded NHDEP instead of NHDES in the “Certified By” portion of the forms. The third CPI staff member was from the CPI office location in Laconia, New Hampshire, and recorded NHARD in the “Certified By” portion of the forms. Copies of the letters of certification from the NHDES/NHARD to each of the three CPI staff members are provided in Appendix A.

### **Stationary Reciprocal Internal Combustion Engines (RICE)**

Triton’s response letter dated April 9, 2018 identified seven engines located at the Tilcon facilities, three of which had been removed from service. The EPA inquired about the status of obtaining manufacturer Certificates of Conformity and the availability of maintenance records for the engines.

#### *Certificates of Conformity*

Triton contacted the manufacturers of the engines to obtain the dates of manufacture and copies of the Certificates of Conformity. The date of manufacture for the engines was also used to evaluate the applicability of the certification provisions of 40 CFR 89, Subpart B. Details regarding the seven engines are included in the table provided in Appendix B.

In summary, Triton obtained Certificates of Conformity for two of the existing engines, one located at the Griswold facility (Sand Plant electrical supply) and the other located at the Plainville facility (Office Emergency Generator). Copies of the Certificates of Conformity for each engine are provided in Appendix B. The manufacturers were unable to provide copies of the Certificates of Conformity for two other engines, due to the age of the engines, which were manufactured in 1997 (Portable Cone Crusher) and 1998 (Plainville Concrete Plant generator). Regardless, there is no reason to believe that these engines were manufactured such that they would not have had a Certificate of Conformity and did not comply with the standards as they were manufactured by two of the largest suppliers of engines in the industry (i.e. Caterpillar and Cummins). Furthermore, the engine for the Portable Cone Crusher was removed from service and sold in 2018 as the crusher has been supplied with a direct electrical connect to the grid where it is currently routinely operated.

The remaining three engines (Griswold Sand Plant (former electrical supply), Newington Emergency Generator, and Portable Impactor) were manufactured prior to the requirement for manufacturers to obtain a certificate in accordance with the Emission Standards and Certification Provisions of 40 CFR 89, Subpart B. Of these engines, only the Newington Emergency Generator is still in service.

#### *Maintenance Records*

Tilcon utilizes a Computer Maintenance Management System (CMMS) for scheduling engine maintenance. Maintenance requirements are entered into CMMS along with prompts that are

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assigned to supervisors when specific maintenance is due. Once the prompt is received, a work order is created and assigned to a mechanic.

In addition, Tilcon has developed standardized forms to more formally document inspection and maintenance activities to address NSPS Subpart IIII and NESHAP Subpart ZZZZ requirements. An example Engine Inspection, Maintenance and Recordkeeping Form is provided in Appendix C. While some information in CMMS and the forms may be redundant, Tilcon believes that it is useful to have the information included on the forms as a central point to document conformance.

## **Boilers**

Triton's April 9, 2018 response letter identified three boilers located at the Tilcon facilities that are subject to 40 CFR 63 Subpart JJJJJ (Subpart 6J). The boilers located in Hartford and Old Saybrook are currently in service. The third boiler, located in Norwich, was taken out of service in 2016. The EPA inquired about Tilcon's maintenance/tune-up program.

Annual tune-ups are completed on the two active boilers subject to Subpart 6J, which is actually more frequent than is required for these types of boilers. Tune-ups are only required every five years since these boilers are rated at less than 5 MMBtu/hr. The annual tune-ups include inspection of the burners and replacement of the filters, as needed. The flame pattern of the burners are inspected annually and adjusted as necessary. An outside contractor (Hartford Boiler) calibrates the air-to-fuel ratio on the boilers located in Hartford and Old Saybrook on an as-needed basis when the respective burners do not appear to be running efficiently. Although this list of tasks is believed to largely address the Subpart 6J requirements, documentation has been limited and could be improved. Further research could be completed to retrieve available records, receipts from service providers, etc. if requested. Going forward, Tilcon has developed comprehensive forms to better document inspection and maintenance requirements per Subpart 6J. An example Boiler Tune-up and Recordkeeping Form is provided in Appendix D.

The EPA also requested that Tilcon identify which of the Subpart 6J notifications and reporting requirements should be completed using EPA's Compliance and Emissions Data Reporting Interface (CEDRI). The "Notification of Compliance Status" under Subpart 6J is the only electronic report that was identified that needs be submitted via CEDRI. Tilcon is reviewing its records to evaluate whether the Notification of Compliance Status was actually submitted via CEDRI for the boilers.

## **Compliance Management Systems**

During the conference call, EPA inquired about the tools and systems that Tilcon has in place for developing records, tracking reporting requirements, etc. to document conformance with the referenced requirements. Management systems have been developed to assist with compliance requirements including the above referenced forms as well as a database system (TRACKER). TRACKER is an electronic web-based program that provides regulatory and compliance item summaries, calendars, and e-mail reminders. Tilcon's CMMS also assists with scheduling maintenance activities and recordkeeping. The forms, TRACKER, and CMMS will be used to address compliance and documentation with the inspection, maintenance, recordkeeping, and notification requirements of the identified NSPS and NESHAPS programs.

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**Closing**

Thank you for taking the time to discuss Tilcon's programs during the referenced conference call. We appreciate your review and the feedback on the more pertinent items that were identified during the agency review of the provided response. We hope the information included with this letter answers your questions and has helped to clarify several of these items. Tilcon is continuing to work to gather additional information and will provide an additional update by October 31, 2018 as agreed during the call.

Thank you for your attention to this matter. If you should have any additional questions, please contact us at 203.458.7200.

Sincerely,



Paul C. Simonetta, CHMM  
Senior Project Manager



Christopher E. Marchesi  
President

cc: Mr. Chris Costello, Tilcon Connecticut Inc.  
Mr. Frank Lane, Tilcon Connecticut Inc.

*Ref. No. 104984L03*

## **Appendix A**

**Copies of Visible Emissions Evaluation course certification letters from the  
NHDES to the CPI staff members**



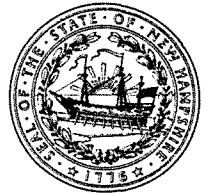
State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095

603-271-3503

FAX 603-271-2867

TDD Access: Relay NH 1-800-735-2964



May 13, 1996

Mr. Jeffrey Slade  
Continental Placer, Inc.  
P.O. Box 825  
Laconia, NH 03247

Dear Participant:

Please be advised that you have successfully completed the recent "Visible Emissions Evaluation" held in Concord, New Hampshire on April 23, and 24, 1996. Having participated in the smoke evaluation sessions, you have met the following certification criteria:

- (1) The average deviation for the sets of 25 black smoke and 25 white smoke emissions was less than 7.5%.
- (2) The deviation of each reading was 15%, or less.

This certification is valid until October 24, 1996. A copy of your test sheet will be supplied upon request.

Sincerely,

*Kenneth A. Colburn*

Kenneth A. Colburn  
Director  
Air Resources Division



State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095

603-271-3503 FAX 603-271-2867

TDD Access: Relay NH 1-800-735-2964



May 13, 1996

Mr. Scott Hazelton  
Continental Placer, Inc.  
P.O. Box 825  
Laconia, NH 03247

Dear Participant:

Please be advised that you have successfully completed the recent "Visible Emissions Evaluation" held in Concord, New Hampshire on April 23, and 24, 1996. Having participated in the smoke evaluation sessions, you have met the following certification criteria:

- (1) The average deviation for the sets of 25 black smoke and 25 white smoke emissions was less than 7.5%.
- (2) The deviation of each reading was 15%, or less.

This certification is valid until October 24, 1996. A copy of your test sheet will be supplied upon request.

Sincerely,

Kenneth A. Colburn  
Director  
Air Resources Division

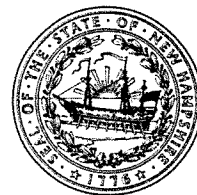


State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095

603-271-3503 FAX 603-271-2867

TDD Access: Relay NH 1-800-735-2964



May 13, 1996

Ms. Heather Dennis  
Continental Placer, Inc.  
P.O. Box 825  
Laconia, NH 03247

Dear Participant:

Please be advised that you have successfully completed the recent "Visible Emissions Evaluation" held in Concord, New Hampshire on April 23, and 24, 1996. Having participated in the smoke evaluation sessions, you have met the following certification criteria:

- (1) The average deviation for the sets of 25 black smoke and 25 white smoke emissions was less than 7.5%.
- (2) The deviation of each reading was 15%, or less.

This certification is valid until October 24, 1996. A copy of your test sheet will be supplied upon request.

Sincerely,

*Kenneth A. Colburn*

Kenneth A. Colburn  
Director  
Air Resources Division



## **Appendix B**

### **Table of Additional Information for Tilcon Engines and Copies of Certificates of Conformity**

- 1. Certificate of Conformity No. ECPXL27.0HYA-18**
- 2. Certificate of Conformity No. CEX-NRCI-07-19**

**Table 1**  
**Tilcon Connecticut Inc.**  
**Additional Information for Tilcon Engines**

<b>Tilcon Site</b>	<b>Engine Type / Purpose</b>	<b>Manufacturer</b>	<b>Date of Manufacture</b>	<b>Certificate of Conformity</b>	<b>Comments</b>
Griswold	1093 HP, NRCI / electrical power for Sand Plant	Caterpillar	July 28, 2014	Copy Provided	Copy of Certificate No. ECPXL27.0HYA-018 provided.
Griswold (Out of service)	700-800 HP, NRCI / previous electrical power for Sand Plant	Caterpillar	June 6, 1986	Not Applicable	Manufactured prior to effective date of mandatory certification as per 40 CFR 89. <sup>1.</sup> <b>Engine removed in 2014.</b>
Newington	205 kW, NRCI, / emergency generator for office	Caterpillar	January 31, 1994	Not Applicable	Manufactured prior to effective date of mandatory certification as per 40 CFR 89. <sup>1.</sup>
Plainville	520 BHP, NRCI / emergency generator for office	Cummins	December 2007	Copy Provided	Copy of Certificate No. CEX-NRCI-07-19 provided.
Plainville	68 BHP, NRCI / emergency generator for Concrete Plant	Cummins	September 1998	Not Available	Copy of certificate not available from manufacturer. <sup>2.</sup>
Portable Cone Crusher (Engine Removed from Service)	536 HP, NRCI / primary electrical power for cone crusher	Cummins	1997	Not Available	Copy of certificate not available from manufacturer. <sup>2.</sup> <b>Engine removed in 2018.</b>
Portable Nordberg Impactor (Out of service)	405 HP, NRCI / primary electrical power for impactor	Cummins	September 1993	Not Applicable	Manufactured prior to effective date of mandatory certification as per 40 CFR 89. <sup>1.</sup> <b>Engine removed in 2012.</b>

**Notes:**

NRCI = Nonroad Compression-ignition, HP = Horsepower, BHP = Brake Horsepower, kW = Kilowatt

1. The effective dates of mandatory certification as per 40 CFR 89, Subpart B vary based on the kilowatt power rating of the engine. The effective dates range from January 1, 1996 through January 1, 2000.

2. The manufacturer was unable to provide a copy of the certificate of conformity due to the age of the engines (manufactured in 1997 and 1998). An attempt was made to obtain copies of the certificates of conformity from the EPA Imports Line (Imports@epa.gov). The EPA Imports Line replied that the certificates are no longer on file due to their age.

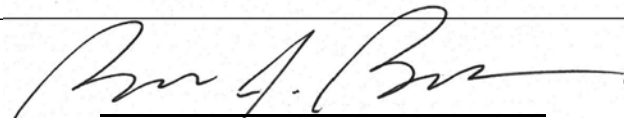


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
2014 MODEL YEAR  
CERTIFICATE OF CONFORMITY  
WITH THE CLEAN AIR ACT OF 1990

OFFICE OF TRANSPORTATION  
AND AIR QUALITY  
ANN ARBOR, MICHIGAN 48105

**Certificate Issued To:** Caterpillar Inc.  
(U.S. Manufacturer or Importer)  
**Certificate Number:** ECPXL27.0HYA-018

**Effective Date:**  
09/30/2013  
**Expiration Date:**  
12/31/2014

  
Byron J. Bunker, Division Director  
Compliance Division

**Issue Date:**  
09/30/2013  
**Revision Date:**  
N/A

**Model Year:** 2014  
**Manufacturer Type:** Original Engine Manufacturer  
**Engine Family:** ECPXL27.0HYA

**Mobile/Stationary Indicator:** Both  
**Emissions Power Category:** 560<kW<=900  
**Fuel Type:** Diesel  
**After Treatment Devices:** No After Treatment Devices Installed  
**Non-after Treatment Devices:** Electronic/Electric EGR - Cooled, Electronic Control  
**FELs:** NOx 3.3 g/kW-hr

Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Parts 60 and 1039, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Parts 60 and 1039 and produced in the stated model year.

This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Parts 60 and 1039 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Parts 60 and 1039.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Parts 60 and 1039. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR Parts 60 and 1039.

This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

This certificate of conformity is conditional upon compliance of said manufacturer with the averaging, banking and trading provisions of 40 CFR Part 1039, Subpart H. Failure to comply with these provisions may render this certificate void *ab initio*.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

2007 Model Year Certificate of Conformity

Manufacturer: **CUMMINS INC.**  
Engine Family: **7CEXL0661AAH**  
Certificate Number: **CEX-NRCI-07-19**  
Intended Service Class: **NR 7 (225-450)**  
Fuel Type: **DIESEL**  
FELs: **NMHC+NOx: N/A** **NOx: N/A** **PM: N/A**  
Effective Date: **11/3/2006**  
Date Issued: **NOV 03 2006**



Karl J. Simon, Acting Director  
Compliance and Innovative Strategies Division  
Office of Transportation and Air Quality

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR Part 89, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following nonroad engines, by engine family, more fully described in the documentation required by 40 CFR Part 89 and produced in the stated model year.

This certificate of conformity covers only those new nonroad compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 89 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 89.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 89.129-96 and 89.506-96 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 89. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 89.

This certificate does not cover nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

## **Appendix C**

### **Engine Inspection, Maintenance, and Recordkeeping Form**

**Tilcon Connecticut Inc. – Plainville Plant**  
**Office Emergency Generator**  
**Engine Inspection, Maintenance, and Recordkeeping Form**

**Equipment:** Engine for the emergency generator for the Office. The engine is a Cummins/Onan (14.9 L, 520 BHP) Non-Road Compression Ignition (NRCI) internal combustion engine.

Records of all required maintenance performed on the engines and air pollution control and monitoring equipment must be maintained and kept for 5 years following the date of maintenance. This engine and associated air pollution control devices must be operated and maintained according to the manufacturer's emission-related written instructions, and in accordance with applicable regulatory requirements as listed below.

- 1. Engine Oil and Filter:** At a minimum, the engine oil and filter must be changed every 500 hours of operation or annually (whichever comes first).

Date completed: \_\_\_\_\_ Completed by: \_\_\_\_\_

Comments or corrective actions performed:

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- 2. Air Cleaner:** At a minimum, inspect the air cleaner every 1,000 hours of operation or annually (whichever comes first), and replace as necessary. **Note:** If the engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified that the high backpressure limit of the engine is approached.

Date completed: \_\_\_\_\_ Completed by: \_\_\_\_\_

Comments or corrective actions performed:

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- 3. Hoses and Belts:** At a minimum, inspect the hoses and belts every 500 hours of operation or annually (whichever comes first), and replace as necessary.

Date completed: \_\_\_\_\_ Completed by: \_\_\_\_\_

Comments or corrective actions performed:

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**4. Other Required Maintenance:** Record other inspections and maintenance performed in accordance with the manufacturer's emission-related written instructions.

Maintenance or Inspection Performed

Date Performed


Comments or corrective actions performed:


## **Appendix D**

### **Copy of Boiler Tune-up Form**



**Tilcon Connecticut Inc. – Hartford Plant  
Boiler Tune-up and Recordkeeping Form**

**Boiler:** Fuel oil-fired Infern-O-Therm (2.76 MMBtu/hr).

Tune-up of the boiler is required in accordance with National Emission Standards for Hazardous Air Pollutants 40 CFR 63 Subpart JJJJJ (NESHAP Subpart 6J), and a record of the tune-up must be maintained. Based on the heat input of this boiler (< 5MMBtu/hr), a tune-up of the boiler is required every 5-years.

**1. Burner:** Inspect the burner. Clean or replace any components of the burner as necessary.

Date completed: \_\_\_\_\_ Completed by: \_\_\_\_\_

Comments or corrective actions performed:

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**2. Flame Pattern:** Inspect the flame pattern. If needed, adjust the burner as necessary to optimize the flame pattern (consistent with manufacturer's specifications).

Date completed: \_\_\_\_\_ Completed by: \_\_\_\_\_

Comments or corrective actions performed:

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**3. Air-to-Fuel Ratio:** Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.

Date completed: \_\_\_\_\_ Completed by: \_\_\_\_\_

Comments or corrective actions performed:

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**4. Optimize Emissions of CO:** Optimize total emissions of Carbon Monoxide (CO) consistent with manufacturer's specifications.

Date completed: \_\_\_\_\_ Completed by: \_\_\_\_\_

Comments or corrective actions performed:

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- 5. Measure Concentrations of CO:** Measure the concentrations of CO in ppm (by volume), and Oxygen (volume %), before and after adjustments are made. Measurements may be taken using a portable CO analyzer. Measurements may be on a dry or wet basis, as long as consistent. Record the concentrations in the table below.

Before Adjustments		After Adjustments	
CO (ppm)	Oxygen (%)	CO (ppm)	Oxygen (%)

Date completed: \_\_\_\_\_

Completed by: \_\_\_\_\_

Comments or corrective actions performed:

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